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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,435	06/23/2003	David J. Smith	03DJS02	7154

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EXAMINER

EASHOO, MARK

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,435

Applicant(s)

SMITH ET AL.

Examiner

Mark Eashoo, Ph.D.

Art Unit

1732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, claim 2 recites "A cooling device according to claim 1" which renders the claim indefinite because claim 1 is a process claim. Furthermore, the above phases appears to suggest that claim 2 is an apparatus claim however, the limitations therein are directed to process steps which renders the claim indefinite. For the purpose of further examination the claim has been interpreted as a "process" claim.

Specifically, claim 3 recites "An improved cooling device according to claim 2" which renders the claim indefinite because claim 1 is a process claim. Furthermore, the above phases appears to suggest that claim 2 is an apparatus claim however, the limitations therein are directed to process steps which renders the claim indefinite. For the purpose of further examination the claim has been interpreted as a "process" claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Jester (US Pat. 3,141,194).

Jester teaches the claimed process of producing a thermoplastic film, comprising: extruding melt curtain from a slot die onto a chilled casting roll (Fig. 1, elements 11, 13, and 15); discharging a diffuse/broad stream of cooling air onto a substantial portion of a thermoplastic film on a cooled casting roll (3:60-73 and Fig. 1, elements 23 and 33); discharging a linear source of pressurized air toward the diffuse/broad stream (Fig. 1, element 59); wherein the linear source of air deflects/diverts the diffuse air discharge from the thermoplastic film after the film is extruded from the die but prior to the time the extrudate strikes the chilled casting roll (Fig. 1). It is noted that it is inherent that the linear air from element 59 deflects/diverts at least a portion of the diffuse air from element 33 since the element 59 is directed toward and overlaps a portion of element 33 (Figs. 1 and 2).

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Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Heyer (US Pat. 4,255,365).

Heyer teaches the claimed process of producing a thermoplastic film, comprising: extruding melt curtain from a slot die onto a chilled casting roll (Fig. 3, elements 33-35); discharging a diffuse/broad stream of cooling air onto a substantial portion of a thermoplastic film on a cooled casting roll (Fig. 3, element 30); discharging a jet/linear source of pressurized air toward the diffuse/broad stream (Fig. 3, element 37); wherein the linear source of air deflects/diverts the diffuse air discharge from the thermoplastic film after the film is extruded from the die but prior to the time the extrudate strikes the chilled casting roll (Fig. 3). It is noted that it is inherent that the jet/linear air from element 37 deflects/diverts at least a portion of the diffuse air from element 30 since the pressurized air exits out the gap near element 38 otherwise it would cause unwanted film instabilities if it exited toward element 31.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jester (US Pat. 3,141,194) in view of Scheibner et al. (US Pat. 4,676,851).

Jester teaches the basic claimed process as set forth above.

Jester does not teach directing an air flow at 30 degree from the tangent of the cooling roll. However, Scheibner et al. teaches directing an air flow at 30 degree from the tangent of the cooling roll (5:55-6:8). Jester and Scheibner et al. are combinable because they are from the same field of endeavor, namely, film casting. At the time of invention a person of ordinary skill in the art would have found it obvious to have directed an air flow at 30 degree from the tangent of the cooling roll, as taught by Scheibner et al., in the process of Jester, and would have been motivated to do so because Scheibner et al. suggests such nozzle orientation prevents interference with the extrudate.

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Jester does not teach cooling the air to below ambient temperature. Jester does teach the air can be pre-cooled to suit particular operating conditions (3:60-70). Similarly, Scheibner et al. teaches directing a "gaseous coolant" from an air knife (5:55-6:8). At the time of invention a person of ordinary skill in the art would have found it obvious to have adjusted a gaseous cooling air to suit desired operating conditions, as commonly practice in the art through routine experimentation and optimization, in the process of Jester, and would have been motivated to do so because Scheibner et al. suggests such cooling would aid the quenching of the extruded film.

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heyer (US Pat. 4,255,365) in view of Scheibner et al. (US Pat. 4,676,851).

Heyer teaches the basic claimed process as set forth above.

Heyer does not teach directing an air flow at 30 degree from the tangent of the cooling roll. However, Scheibner et al. teaches directing an air flow at 30 degree from the tangent of the cooling roll (5:55-6:8). Heyer and Scheibner et al. are combinable because they are from the same field of endeavor, namely, film casting. At the time of invention a person of ordinary skill in the art would have found it obvious to have directed an air flow at 30 degree from the tangent of the cooling roll, as taught by Scheibner et al., in the process of Heyer, and would have been motivated to do so because Scheibner et al. suggests such nozzle orientation prevents interference with the extrudate.

Heyer does not teach cooling the air to below ambient temperature. However, Scheibner et al. teaches directing a "gaseous coolant" from an air knife (5:55-6:8). At the time of invention a person of ordinary skill in the art would have found it obvious to have adjusted a gaseous cooling air to suit desired operating conditions, as commonly practice in the art through routine experimentation and optimization, in the process of Jester, and would have been motivated to do so because Scheibner et al. suggests such cooling would aid the quenching of the extruded film.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See attached form PTO-892.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Eashoo, Ph.D. whose telephone number is (571) 272-1197. The examiner can normally be reached on 7am-3pm EST, Monday - Friday.

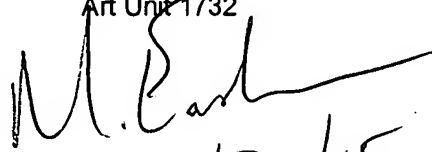
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianne can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuesday, June 21, 2005
me

Mark Eashoo, Ph.D.
Primary Examiner
Art Unit 1732



21/June/05